

**Document #663 Goddard, Terry      Office of the Attorney General**



**OFFICE OF THE ATTORNEY GENERAL  
STATE OF ARIZONA**

**TERRY GODDARD**  
ATTORNEY GENERAL

February 18, 2005

Mr. Don Metzler  
Moab Federal Project Director  
U. S. Department of Energy  
2597 B ¾ Road  
Grand Junction, CO 81503

Re:      Comments on the Moab Uranium Mill Tailings Draft EIS

Dear Mr. Metzler:


With this letter, I am providing comments on the *Remediation of the Moab Uranium Mill Tailings, Grand and San Juan Counties, Utah, Draft Environmental Impact Statement* released for public comment by DOE in November 2004.

The Colorado River is a vitally important resource for Arizona, and its long-term health matters enormously to the people of this State. In general, I concur with Governor Schwarzenegger of California, Governor Guinn of Nevada, Governor Richardson of New Mexico and our own Governor Napolitano that the Moab Uranium Mill Tailings pile should be removed from the bank of the Colorado River, rather than stabilized in place, to ensure the protection of human health and the environment of downstream users. I am concerned that despite your Agency's best efforts, if the pile is left in place, natural subsidence of the pile and future flood events may result in future releases of contamination to groundwater and the Colorado River. I note that part of the Moab tailings impoundment currently sits in the floodplain of the Colorado River and that during a 100-year flood event, the estimated water level would be three to four feet above the base of the tailings pile. I also share Utah's concern that by leaving the tailings in place, the remediation goal for ammonia discharges to the Colorado will never be achieved. Prolonged, elevated concentrations of ammonia could have a severe adverse impact on the health and safety of the residents of Arizona and Utah living along the Colorado River. It could also cause great harm to aquatic life and their habitat and adjacent wetlands.

I have also examined the three off-site remedial alternatives. While all of these alternatives are superior to the on-site alternative, I find the off-site disposal of the uranium tailings at the White Mesa Mill Site the least desirable. Disposal of the uranium mill tailings at either the Klondike Flats or Crescent Junction is preferable because of their proximity to the Moab site, their proximity to existing rail lines and their proximity to off-site borrow areas that can be used for clean backfill and capping purposes. Further, I am concerned that disposal of the uranium tailings at the potential White Mesa Mill disposal site will result in substantially increased truck traffic, with a concomitant increase in the risk of traffic accidents along the US-191 corridor, and in a disturbance of the cultural and historical resources of the Ute Tribe.

Thank you for considering my comments.

Sincerely,



Terry Goddard  
Arizona Attorney General

1275 WEST WASHINGTON, PHOENIX, ARIZONA 85007-2926 • PHONE 602.542.4266 • FAX 602.542.4085

**Document #669 Kamala, Laura      Grand Canyon Trust**

February 18, 2005

To The Department of Energy,

The Atlas Mill Tailings must be removed from the banks of the Colorado River and moved to a safe contained area well away from the river.

I have been a resident of Grand County for 28 years. I've seen the Colorado River lapping up against the Atlas uranium mill tailings pile in the high water years of '83 and '84. The best available science says that 12 million tons of radioactive waste will wash downstream if left in place, it is just a matter of time. A National Academy of Science report confirms this as well as the USGS. You are well aware of the scientific facts.

I stood with Congressman Matheson last October on the riverbank next to the tailings pile and took water samples that dramatically illustrated the rapid outflow of a toxic brew of chemical waste into the current of the river. After all, 57,000 gallons per day of this toxic plume have been pouring into the river for the past 40 years.

The existence of an alternative in the DEIS that considers capping the tailings pile in place is a blatant disregard of the health and welfare of 26 million downstream water users and demonstrates an utter lack of responsibility for the economic disaster that will occur when the Colorado River washes the tailings downstream. Such a scenario should be included in an analysis of the real costs of capping the pile in place.

Residents of Moab are threatened with contamination of their culinary aquifer by the toxic plume emanating from the tailings pile. For many years I watched as high Spring winds sent thick clouds of toxic tailings dust airborne, to settle over the residents of the Moab valley. This community has suffered enough from the long range effects of uranium mining and milling and waste storage.

The Department of Energy should choose an alternative that removes the mill tailings from the banks of the Colorado River. I vote for the Klondike Bluffs site.

Laura Kamala  
Director of Utah Programs  
Grand Canyon Trust  
HC 64 Box 1705  
Castle Valley, Utah 84532

**Document #672 Peschong, Jon     Duratek Federal Services**

**From:** Jon Peschong [JCPESCHONG@duratekinc.com]

**Sent:** Friday, February 18, 2005 4:06 PM

**To:** moabcomments

**Subject:** Moab Mill Tailings EIS Comment

Section 102 [42 USC 4332] (C) (ii) requires the responsible government official to provide a detailed statement on any adverse environmental effects which cannot be avoided should the proposal be implemented. With the proposed two alternatives, unavoidable impacts are either those impacts resulting from leaving the waste in place (Alternative 1) or impacts resulting from disposal cell construction activities (all three locations analyzed in Alternative 2). The EIS should consider a third alternative - rail and truck transportation of the waste to an existing, licensed disposal cell. This third alternative would not incur the impacts from leaving the waste in place, nor the impacts from disposal cell construction activities. When this alternative is analyzed in the EIS, the existing, licensed disposal cell should be chosen appropriately distant from Moab so as to bound transportation environmental impacts.

Jon Peschong

Duratek Federal Services

e:mail: [jcpeschong@duratekinc.com](mailto:jcpeschong@duratekinc.com)

**Document #673 Clark, Monette Individual**

**From:** Monette Clark [clarkcom@frontiernet.net]  
**Sent:** Friday, February 18, 2005 3:52 PM  
**To:** moabcomments  
**Subject:** Comment on the EIS, Moab, Utah UMTRA Project  
Donald R. Metzler, Moab Federal Project Director  
U.S. Department of Energy  
Office of Environmental Management  
2597 B-1/4 Road  
Grand Junction, CO 81503

February 18, 2005

RE: Comment on the EIS, Moab, Utah UMTRA Project

Dear Mr. Metzler:

I am a resident of San Juan County, Utah, living in the upper end of the Moab Valley, just across the Grand County line. I am writing to make a comment on the Draft Environmental Impact Statement (EIS) issued by the DOE for the Moab, Utah UMTRA Project Site. **I am in favor of moving the uranium tailings pile away from the banks of the Colorado River and relocating the contaminated soil, by rail, to the Crescent Junction site within Grand County.**

I believe it is imperative that the tailings be moved off the river bank because it is a big health and safety risk, both for residents of the Moab Valley and for the huge population living downstream of the Colorado River. Several years ago, a study showed that the tailings pile is already contaminating the nearby river water with ammonia that is strong enough to kill the fish. Another recent study has found that contaminants are leaching into the ground water across the river, in the Matheson Wetlands Preserve! This is scary and is bound to get worse the longer the pile remains where it is. It is only a matter of time before the Moab Valley ground water becomes polluted and the people of Moab will have unsafe drinking water coming out of the wells that supply us. The tailings pile has been there all my life. I grew up in Moab during the 50s and 60s, when the uranium mill was actively processing uranium. The yellowcake and dust from the tailings pond and mill site was blowing all over the valley when I was a kid. I have been exposed to enough radioactivity already.

The conclusions in the EIS about the river moving southward and the valley floor subsiding have been challenged by other studies and other scientists. I ask you to consider the following items:

- Grand County and governors and representatives across the region are **unanimous** in their position that pile should be moved to a safe, contained area within the county.
- The National Academy of Science says that it is a near certainty that the river's course will run over the Moab uranium mill site at some time. A major flood or storm event will cause radioactive waste and other chemicals to wash into the Colorado River. The fact that a 100 or 500 year flood has not occurred in recent history is not a good enough reason to suppose that such an event will not occur in the future. In the scheme of geologic and meteorological history, recent history means nothing. To confine ourselves to the limited purview of recent history is both dangerous and irresponsible. We have the opportunity and responsibility to protect future generations and millions of people in the lower Colorado River Basin.

Moving the Moab Uranium Tailings Pile is a justice owed to the Moab community. The government started the Uranium Boom and created the market for it. Moab people, including my relatives, produced the radioactive material for America's defense. And everybody in America benefited by being "protected." Many of the mill workers are now dead of cancer. Fifty-plus years later, the government should be responsible enough to defend the local people that are left (and all the new people moving in here due to our new tourist economy) against the very real terror of radioactive pollutants on the riverbank! The cost of moving the pile should be shared by the nation that shared in the "benefits" of nuclear defense.

**Please move the tailings pile NOW.**

Thank you for considering my comment.

Sincerely,

Monette Clark

22 West Coronado Street

PO Box 1274

Moab, UT 84532

**Document #684 Weber, Ivan Weber Sustainability Consulting**

Page 1 of 1

**Kym Bevan**

#684

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**From:** Ivan Weber [ivan@webersustain.com]  
**Sent:** Friday, February 18, 2005 2:21 PM  
**To:** moabcomments  
**Subject:** Moab Atlas Mill Tailings DEIS Comments

Dear Mr. Metzler and Staff:

Please accept and consider the attached comments on the DEIS, respectfully submitted today, February 18, 2005, the last day of the allotted comment period.

Sincerely yours,  
Ivan Weber, Principal/Owner  
Weber Sustainability Consulting  
953 1st Avenue  
Salt Lake City, Utah 84103  
(801)355-6863 / (801)651-8841 cellular  
[ivan@webersustain.com](mailto:ivan@webersustain.com)  
[www.webersustain.com](http://www.webersustain.com) (under construction)

2/21/2005

*Remediation of the Moab Uranium Mill Tailings, Grand and San Juan Counties, Utah  
Final Environmental Impact Statement*

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February 18, 2005  
953 1<sup>st</sup> Avenue  
Salt Lake City, Utah 84103

#684, p2

Mr. Don Metzler  
Moab Federal Project Director  
U.S. Department of Energy  
2597 B3/4 Road  
Grand Junction, Colorado 81503

Subject: Comments, Atlas Mill Tailings Remediation DEIS

Dear Mr. Metzler:

In commenting on the Atlas Tailings DEIS, we can do no better than to echo and endorse the comments furnished to you by Lance Christie, longtime Moab resident and capable critic of plans for Atlas Tailing Remediation. It is our sense that he, along with Sarah Fields of the Glen Canyon Group of the Sierra Club Utah Chapter, have identified nearly every conceivable issue of concern, very conscientiously on behalf of the public, the town of Moab and regional wildlife populations.

Of those raised to date, the single one of greatest concern amounts to a strenuous objection to leaving in place and capping of the tailings. The reasons that I will cite for this objection, and for the corollary favor for tailings pile relocation, are these:

- River undercutting: River morphology will undermine the site, repeatedly and emphatically, not only through extreme high water event dynamics, but also through the more frequent annual high water scouring. It is extremely important to register objection to the DOE hydrological model for river cutting, which apparently failed to incorporate suspended sediment effects. With increased velocity that occurs in high water events, suspended particle size also increases. One would see that very large rocks are among suspended sediments being tumbled and swirled along the bottom/outside of a river bend, such as that occupied by the Atlas Tailings. The DEIS's arguments that the river will cut downward in the channel's center defy common sense, not to mention the accumulated body of knowledge on river morphology. Study of channel migration mechanics need stray no more than a few miles from the Atlas site to find many examples to belie the DEIS model, and show that the site is in a great deal more jeopardy than DOE postulates.
- Capping won't prevent Colorado River centrifugal undercutting: Surficial "capping" or "armoring" of the pile will do little to prevent undercutting and collapse of the pile. As the pile rests on gravels and alluvial sediments of previous river-course migrations --- in other words, the river has been there, in the past --- there is no valid basis for assuming that the river channel cannot go through the site again. Given the potential for significant precipitation pattern changes due to regional global climate change impacts (as projected in *Preparing for a Changing Climate: The Potential Consequences of Climate Variability and Change - Rocky Mountain/Great Basin*, Feb 2003, Dr. Fred Wagner et.al., Utah State U.), the possibility that the historical range of variability of flows may be exceeded does exist. This introduces the possibility that our certainty about Colorado River behavior and dynamics may be reduced greatly. DOE may find itself armoring the site repeatedly, as has been the experience of many other river channeling projects (e.g., Mississippi and Missouri), or of harbor protection projects worldwide. This future risk must be factored into the calculus of this decision, especially the likelihood that the estimated lower costs of capping in place have been assigned erroneously. Initial costs may be lower, perhaps; but long-term costs, perhaps even in a timeframe of only a few decades, may be multiples of the initial cost.
- Site structural instability: The subsurface fault trending NW-SE through the tailings site cannot be predicted to be stable, and may provide to the river a point of weakness to induce more northwestward cutting than could be supposed if the site consisted of homogenous strata. It is through rock structural weaknesses such as these that this great river manages to cut through great ramparts to seek the most hydrologically direct

AtlasTailingsDEIS

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route to the sea. In terms of the Colorado River's history, to follow the path of least resistance enough to completely remove the Atlas Tailings site is a relatively small matter. It is not a geotechnically "strong" site.

- Biogeochemistry neglected, Source control not accomplished by capping-in-place: Leaving tailings in place does not accomplish contamination source control. The DEIS is inadequate in its consideration of the processes by which ammonia and other "contaminants of concern" are leached from the tailings pile. Capping with relatively impermeable materials (clay from decomposed shale) and subsequent armoring may retard percolation of the meager precipitation that falls on the cap, but it will not stop capillary flow from below, or upflow induced by the area's hydrological gradient and zones of rock weakness, such as the fault. Moreover, bacterial action, which is surely involved in ammonia formation, may not be retarded by capping if key microbiological communities will thrive on anaerobic conditions. This is often the case in tailings and waste rock piles, in which even some oxidizing bacteria require little or no air to perpetuate their effects.
- Tailings contamination behavior if swept into the Colorado: Recent newspaper commentary suggesting that the contamination produced by the tailings would be diluted and homogenized into Colorado River waters and sediments, then sequestered in Lake Powell, are simplistic and probably wrong. Rivers only homogenize some materials, usually those of similar density and other physical characteristics. Materials of greater density get *sorted and classified* by rivers, accounting for placer deposits of gold, silver, tin, and other metals. Again, risk is involved in the objectionably negligent attitude that it's OK to let the river take away the tailings and 'naturally attenuate' the contamination. This would be a very bad decision, based on extremely reprehensible ethics and miserably deficient science.
- Human health impacts: Radon may undergo repeated episodes of release if and when the cap is compromised by collapse or cutting, due to outward river migration under the site. These episodes could be quite significant, depending on weather conditions, endangering human health to a far greater degree than projected for the relatively steady-state modeled in the DEIS.
- Wetlands impacts: The Matheson Wetlands Preserve may well be receiving contaminated flows passing *under* the river and emerging downgradient in the wetlands. This observation points out the complexity of hydrology in the area, and the urgent need to remove the source in order to remediate ground water contamination. Without source removal, this ongoing threat to wetlands and wildlife cannot be mitigated or halted. Selenium, particularly, appears not to have been accounted for its potential teratogenic effects on birds, fish and amphibians --- particularly on birds in the Matheson Wetlands Preserve. The maximum selenium concentration reported in Appendix A2, 0.026 mg/L (26 ppb) is well beyond the appropriate limits for wildlife reproductive integrity, according to a growing body of literature on selenium aquatic biology (Lemly and others). The possibility, moreover, of synergistic effects exists. Literature cites, for example, selenium-vanadium interactive effects on wildlife, which cannot be ruled out as a condition created by continued presence of the Atlas Tailings on this site, and failure adequately to remediate ground water beneath the site, including extended effects into the deeper aquifer.
- Relocation is the only option: As a consequence of recognition of all these risks, moving the tailings is imperative. Other risks, such as from dust and radon during the relocation, can be reduced acceptably (indeed, must be controlled) by 'engineering controls.'
- Transport options: Practical considerations elucidated in the DEIS warrant respect, it goes without saying. As one involved in relocation of significantly greater quantities of various types of tailings, sludges and waste rock on Kennecott Utah Copper's unprecedented cleanup projects in the 1990s, I can only encourage the choice of least energy-consumptive option. Intuitively, rail is preferable if systems of excavation/loading and unloading/placement can be devised. The option that is obviously not adequately considered, that we believe may be critical to the feasibility of rail transport, is conveyor use at each end. It is a proven technology, utilized over longer distances than will be encountered at either Klondike or Crescent disposal sites, with ample flexibility to minimize multiple handling events and dust. Pressure slurry may be acceptable as an alternative transport means, but adequate treatment of slurry waters must be taken into account before discharge, under some conditions. Truck transport involves less chance of multiple handling, and greater flexibility of placement, but also involves much greater energy consumption than a rail/conveyor system. Truck activity at the tailings loading site may also present the greatest risk of uncontrollable dust, as well as of diesel emissions, which could contribute to already marginal air quality conditions in Moab during temperature inversions.
- Disposal site options: Klondike Flats seems the preferred option, with White Mesa Mill absolutely ruled out.

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- White Mesa Mill has one of the worst records of contaminated materials handling we have ever encountered. In the course of recent review of process cell construction, we have learned of the woeful inadequacy of cell design, liner specification, subgrade preparation, drainage and monitoring system design and installation, and of liner installation, but particularly of liner covering with 'protective' soil materials. Instead of sand for bedding and covering liners, the cells are shown in QA/QC report photos to have been covered with soils characterized by large, angular rocks that almost certainly caused perforations in liners even before construction was completed. There is no reason, based on IUC's record, to suppose that they are capable of doing any better with future lined basins, even with the assumption of regulatory authority by a more attentive staff at UDRC. IUC has not earned the public's trust. Beyond this fact, the construction of a long pressure-slurry pipeline is fraught with construction and operational risk, and presents the inevitability of disposal of contaminated water, contaminated by the slurry event, itself. This 'choice' is no choice; White Mesa must be rejected *prima facie*.
- Given our preference for rail/conveyor transport, Klondike Flats is the most appealing. Compared to the Crescent Junction site, there may also be factors of visual impacts and possible health exposures that should be considered. Either site is, by such a great margin, preferable to all the other alternatives that we find no objection to either.
- Costs: The costs estimated by DOE, as well as by NRC and Price Waterhouse Coopers before DOE assumed responsibility for the site, appear beyond reason. We appreciate the need to be conservative in the direction of assuring adequate funds to do the job well, but we find no other cleanup in recent years to approach the per-unit relocation costs outlined. If any part of the project seems likely to exceed projected costs, we submit that it may be ground water remediation. Given the apparent inadequacy of DEIS analysis of sub-site geology and hydrology, there may be surprises in store.

Conclusions: The "bottom line" conclusions of our following of the issue, and our review of the DEIS document, supplemented by some modest investigation into subsurface geology and hydrology, as well as comparative visual survey of river morphology at others of the many curves in the region, are that 1) the tailings simply must be moved, and 2) they must be moved either to Klondike Flats or Crescent Junction, if another more suitable site is not identified between now and the time DOE commences these activities. There is no real choice. "No action," "cap in place" and "relocate to White Mesa Mill" are not responsible options, by any stretch of imagination, or applied engineering/environmental science. This is such a patently obvious case of governmental failure to hold a responsible corporation *responsible* that we can only hope and pray that DOE is able to pursue recourse for financial recovery from Atlas of some of these costs. As we say in the vernacular, "This just ain't right!" Emphatically, neither is it "right" to leave the tailings in place!

Thank you sincerely for this opportunity to comment on the DEIS.

Gratefully yours,

Ivan Weber

Document #689 McNeely, Jerry Grand County Council

TO: U.S. DEPARTMENT OF ENERGY Page 03

FROM: 2025865211

RECEIVED Feb-15-05 02:55pm



**GRAND COUNTY COUNCIL MEMBERS**

Jerry McNeely (Chair) · Rex Tanner (Vice Chair)  
Audrey Graham · Judy Carmichael · Jim Lewis ·  
Nate Knight · Joette Langianese

February 15, 2005

U.S. Department of Energy Grand Junction  
2597 B3/4 Road  
Grand Junction, Colorado

RE: Grand County Council

Response to the Remediation of the Moab Uranium Mill Tailings, Grand and San Juan Counties, Utah, Draft Environmental Impact Statement

The Grand County Council would like to thank the Department of Energy for the time devoted to the issue of remediation of the Atlas tailings pile. We recognize your agency has spent many years studying this issue and has been diligent in allowing for public input. We appreciate having this opportunity to formally respond to your study. The County, in fact, has anxiously anticipated the Draft Environmental Impact Statement on the Atlas tailings pile located at the gateway of our community on the shores of the Colorado River. After thoroughly reading and evaluating the DEIS, we would like to relay to you some continuing concerns regarding the disposition of the pile.

First, it appears that much of the document, Remediation of the Moab Uranium Mill Tailings, Grand and San Juan Counties, Utah, Draft Environmental Impact Statement, was based on research that was conducted in 1994. Rather than approaching the subject from a broad spectrum of alternatives, the old research tends to be myopic and focus only on capping the pile in place. Newer studies approached the issue more comprehensively and used more current scientific tools and modeling. *It is significant that the conclusions of all of these studies are in direct conflict with those reached by the DOE.* All of the newer data suggests that moving the tailings pile is the most appropriate solution for the health and safety of all western states that rely upon the water of the Colorado River. These studies, conducted independently by the United States Geological Survey, Dr. Kip Solomon of the University of Utah, and Dr. John Dohrenwend of the University of Arizona, contradicted all of the DOE's findings regarding the stability and migration of the Colorado River. It is Grand County's position that the DOE simply did not utilize the most available and current science and that these later studies and their conclusions should be acknowledged.

It also appears that the DEIS did not take into consideration the findings of the National Academy of Science. At the core of the NAS Committee's findings is the conclusion that the DOE has made some dangerous assumptions regarding the stability of the Colorado River in its relationship to the Atlas tailings pile. These assumptions and uncertainties

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discredit the DEIS and cause Grand County to insist the DOE proceed with the solution that will afford the greatest level of protection to the health and safety of the public. That solution is to move the tailings pile to a safer location within Grand County.

Briefly, the NAS findings, with which Grand County concurs, include the following points:

- 1) It cannot be assumed that the course of the Colorado River will remain in its current position over the next 1000 (or more) years. Specifically, their study states it is a "near certainty that the river's course will run across the Moab Site at some time in the future."
- 2) It is not accurate to suggest there is a low potential for lateral migration of the Colorado River. The NAS states that the DOE appears to be "overly optimistic" with regard to the migration of the river. Indeed, lateral movement of the river channel away from and toward the pile has been observed since this stretch of the Colorado River was first surveyed for possible dams in 1944.

Additionally, while the DOE analysis supports the position that "any potential river migration toward the pile would not occur as a catastrophic event but rather gradually in small increments..." Grand County does not believe this is a valid assumption. There is historical data substantiating floods flowing at 66,100 cubic feet per second (cfs), (1914) 76,800 cfs (1917), 65,000 (1928), 64,400 cfs (1941), 64,200 cfs (1957), 61,900 (1983) and 70,300 (1984). Additionally, a flow of 125,000 cfs was analytically presumed to have occurred in 1884. The river begins to encroach the pile starting at the lowest of these flows. Should the worst event occur, water contaminated by the highly hazardous material could actually encroach into the City of Moab leaving residential and agricultural land contaminated.

It is Grand County's position that the DOE cannot and should not make the assumption that a catastrophic event will not occur. The power of water, illustrated most dramatically by the tsunami that occurred in the Indian Ocean killing a quarter of a million people, mocks science and technology and renders short-term statistical analysis meaningless. Closer to home we have seen the same powerful impacts of water throughout California and southern Utah as homes have been swept past barriers into the sea and rivers from catastrophic rainfall and flooding.

We also cannot dismiss the presence of two reservoirs upstream from the Moab Site that have never been studied in terms of their impact in the event they fail as the result of a natural disaster or an act of human terrorism. The sudden release of those waters into the Colorado would represent a wholly unpredictable catastrophic event.

- 3) While the DOE believes that failure of engineered barriers and the consequences of such a failure can be managed, Grand County agrees with the NAS assessment of such an assumption that "...our society's capacity to guarantee that harm will be prevented is limited."
- 4) The DOE states in the DEIS that a failure would produce "only small and transitory consequences downstream." The NAS report concludes that contamination could appear along the Colorado River from Moab to Lake Powell, requiring remedial action over a long period of time, if only to determine that the threat in a particular year or season is minimal or to declare certain areas off limits. The report discusses the potential of "hot spots" on the beaches and sandbars that could shift from place to place, year to year, or even season to season. It also suggests that the Matheson Wetlands Preserve could be damaged. Additionally, their report explains that, "Many people value the river for its religious and spiritual significance, its dramatic natural beauty, its importance as a water resource, its symbolic representation of the entire region; its importance as an ecosystem, and its centrality to the regional economy."
- 5) The DOE's conclusion is that the life-cycle cost of moving the pile is substantially higher than that of capping it in place and there is no substantial difference in the cost of ground-water remediation and long-term management between the alternatives. For reasons outlined in the following paragraphs, Grand County cannot concur that the life-cycle cost of moving the pile is less than that of capping it in place.

Among the most troubling oversights in the DEIS is the fact that the DOE dismissed any potential of damage to the environment or populations downstream from Grand County. The DEIS recognizes only minimal danger to the local area: "If 20 to 80 percent of the tailings pile were washed into the river, it would have serious adverse impacts on the riparian plant and animal life and would affect the health and safety of residents along the river and of river guides who many spend up to 50 days on the river in a given year. Such a flood event could also affect the tourist economy of Moab if users of the river corridor avoided the area after such an event." (DEIS Summary pg. S-41)

This statement by the DOE grossly and negligently underestimates the environmental and human impact of a Possible Maximum Flood or any other catastrophic event associated with the Colorado River and the Atlas tailings pile. If the 130-acre pile comprised of 12 million tons of waste were to be washed into the Colorado River, the adverse impacts would be immeasurable. Widespread and possibly permanent damage would be sustained not only in Grand County but also throughout the lower basin of the Colorado River drainage and the West. Millions of people live in cities and towns that rely upon the water of the Colorado River for agricultural purposes and/or drinking water. Most notably, major metropolitan areas such as Las Vegas, Nevada, rely upon the water from the Colorado. Likewise Los Angeles and all of southern California are dependent upon this river. The entire Palo Verde Water District including the Imperial Valley and Mohawk water districts rely upon the water from the Colorado River. Lake Havasu City,

Arizona, Parker, Arizona, and the entire Parker Strip subsist upon water from the Colorado. Native American Indian nations use the Colorado River for agriculture and the river is, in fact, the cornerstone of their lives. Blyth, California; Yuma, Arizona, and the country of Mexico would all be significantly and irreparably impacted by damage to the Colorado River. Additionally, the water from the Colorado River is used to irrigate agricultural lands that supply crops and produce to the entire United States. The damage to the American West would extend immeasurably beyond Moab.

We suspect that the cost of moving one of the largest radioactive waste sites in the United States is at the center of the decision. We must protest such thinking, however, because no matter how high the cost of moving the tailings pile now, that cost would pale in comparison to the cost of a near impossible remediation of the Colorado River from here to the coast in the event of a catastrophic event. Additionally, the millions upon millions of agricultural lands that would be contaminated in the event of a natural or human disaster involving the Atlas tailings pile would wreak havoc upon economies throughout Utah, Nevada, Arizona and California. The cost to human lives is, frankly, not quantifiable.

A significant portion of the DEIS is devoted to the consequences of uncertainties: "It is important that decision-makers are cognizant not only of the nature and range of uncertainties, inherent in the EIS but also of the potential consequences of these uncertainties."

Finally, we would like to cite the Floyd D. Spence National Defense Authorization Act of 1999, which states:

"Subject to the availability of appropriations for this purpose, the Secretary shall conduct remediation at the Moab site in a safe and environmentally sound manner that takes into consideration the remedial action plan prepared pursuant to section 3405 (1) of the Strom Thurmond National Defense Authorization Act for Fiscal Year 1999 (10 U.S.C. 7420 note; Public Law 105-261), including – (A) Ground water restoration; and (B) **the removal, to a site in the State of Utah, for permanent disposition and any necessary stabilization, of residual radioactive material and other contaminated material from the Moab site and the floodplain of the Colorado River.**"

*According to this federal law, we should not currently be participating in a debate as to whether or not to move the pile, but rather a discussion as to how quickly we can implement the transfer to a safe site.*

Just as Grand County, and all of southeastern Utah, was willing to step up to the plate and produce uranium for the United States during the Cold War, the County is now willing to help protect the whole of the American West from this imminent danger. We are willing to keep this hazardous radioactive waste in our own back yard. We are not asking that any other community take on the burden of storing this waste.

*Remediation of the Moab Uranium Mill Tailings, Grand and San Juan Counties, Utah  
Final Environmental Impact Statement*

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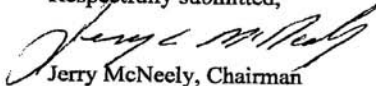
To: US DEPARTMENT OF ENE Page 07

From: 2025865211

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The DOE held the responsibility for ensuring that the information upon which it bases the remediation decision is sufficient and of high quality. Grand County does not believe that responsibility was met. Therefore, the members of the Grand County Council representing the citizens of Grand County, and with the welfare of millions more citizens in the states of Utah, Nevada, Arizona, and California in mind, most respectfully demand the Atlas tailings pile be moved to another location in Grand County. We believe there should be no compromise when it comes to the health and safety of the public.

Respectfully submitted,

  
Jerry McNeely, Chairman  
Grand County Council